

REMARKS

Claims 1-14 and 30-44 are pending in this application. Claims 1-10, 12, 14, 30, and 33-34 have been rejected. Claims 11, 13, and 31-32 have been allowed. Claims 15-29 have been canceled because of the restriction requirement. Claims 35-44 have been added.

The Restriction Requirement

Applicant acknowledges the finality of the restriction requirement and withdrawal of claims 15-29 from examination. Accordingly, as requested by the Office, Applicant has canceled claims 15-29.

Rejection – 35 U.S.C. § 112 ¶ 2

Claims 12 and 14 have been rejected under 35 U.S.C. § 112 ¶ 2 for the reasons noted on pages 2-3 of the Office Action. The Office argues that claims 12 and 14 contain limitations lacking antecedent basis in the independent claims from which they depend.

Applicant thanks the Office for noting the improper antecedent basis. Accordingly, Applicant has amended claims 12 and 14 and, therefore, respectfully requests withdrawal of this ground of rejection.

Double Patenting

1. Claims 1-7, 9-10, 30, and 32-34 have been rejected under the doctrine of obviousness-type double patenting over the claims of several co-pending applications in view of Quigley (U.S. Patent No. 5,048,441) for the reasons noted on pages 3-6 of the Office Action.

2. Claim 8 has been rejected under the doctrine of obviousness-type double patenting over the claims of several co-pending applications in view of Quigley and further in view of Reid et al. (U.S. Patent No. 6,308,809) for the reasons noted on pages 6-7 of the Office Action.

Applicant respectfully disagrees with both of these rejections. The Office notes that the claims of the co-pending applications do not recite a structural member with a portion of the outer surface having a polygonal shape and having a composite overwrap on the polygonal surface. The Office argues that Quigley teaches such limitations and that it would have been obvious for the skilled artisan to have combined the features taught by Quigley with the claims of the co-pending application in order to provide a low weight, low cost, high impact-strength structural member.

Applicant respectfully disagrees with these rejections. The rejected claims contain first, the limitation that the structural member contains a composite overwrap collar or second, the limitation that a composite overwrap is present on only a portion of the outer surface of the structural member. As recognized by the Office on page 10 of the Office Action, Quigley does not describe such features and it would not have been obvious for the skilled artisan to have modified the structural member of Quigley to contain such features.

Being not disclosed by Quigley, the skilled artisan would not have been motivated to modify the claims of the co-pending application with the disclosure of Quigley to arrive at the present claims. Thus, Applicant respectfully requests withdrawal of these grounds of rejection.

Rejection – 35 U.S.C. § 102(b) over Quigley

The Office has rejected claims 1-7, 9-10, 30, and 32-34 under 35 U.S.C. § 102 (b) as being anticipated by Quigley for the reasons noted on pages 8-9. Applicant respectfully traverses this rejection.

As noted above, the present claims currently recite a structural member containing first, a composite overwrap collar or second, the presence of a composite overwrap on only a portion of the outer surface. The Office, however, has not shown that Quigley teaches or suggest either of these claim limitations.

As recognized by the Office on page 10 of the Office Action, Quigley does not teach a composite overwrap collar or an overwrap on only a portion of the structural member. And the Office notes that the skilled artisan would not have been motivated Quigley to obtain such limitations because it would weaken the impact strength of the structural member and destroy the original intent of Quigley.

Accordingly, the Office has not substantiated that Quigley teach or suggest each and every limitation in the rejected claims. Thus, Applicants respectfully requests withdrawal of this ground of rejection.

Rejection – 35 U.S.C. § 103 over Quigley and Reid et al.

The Office has rejected claim 8 under 35 U.S.C. §103 as being unpatentable over Quigley in view of Reid et al., for the reasons noted on pages 9-10. Applicant respectfully traverses this rejection.

The rejected claim contains a limitation that a composite overwrap is present on only a portion of the outer surface of the structural member. As noted above, the Office has not

substantiated that Quigley describes a structural member with this recited limitation. Nor has the Office even argued that the skilled artisan would have considered such a limitation obvious in light of the disclosure of Quigley.

Neither has the Office substantiated that Reid et al. teach or suggest a structural member containing such a limitation. Reid et al. describe and illustrate a crash attenuation system for absorbing the energy from impact forces. *See Abstract and Figures*. The Office has not substantiated that Reid et al. teach a structural member with this composite overwrap. Nor has the Office provided any reason to modify the teachings of Reid et al. to obtain a composite overwrap on only a portion of a polygonal outer surface of the structural member. And since the Office has not shown that Reid et al. teach or suggest this claimed limitation, the Office cannot show that it would have been obvious to modify Quigley to include such a limitation.

For the above reasons, the Office has not substantiated that the skilled artisan would have considered claim 8 obvious over the combined teachings of Quigley and Reid et al. Accordingly, Applicant requests withdrawal of this rejection.

Allowable Subject Matter

Applicant appreciates the indication that claims 11, 13, and 31-32 are allowed. The Office recognizes that Quigley does not teach or suggest an overwrapped collar that is disposed on the polygonal outer surface of the structural member. Citing paragraph 36 of the present specification, the Office notes that the overwrap is “critical” to the polygonal structural member since the collar can be selectively placed on polygonal outer surface to prevent the product from exploding.

Applicant agrees with the indication of allowability, but not with the manner in which the Office has paraphrased the specification. Paragraph 36 of the present specification describes that:

To protect against such a problem [secondary loading], that area of the structural member 2 is "overwrapped" with a composite collar comprising of fibers which are oriented around the circumference of the structural member. This prevents the structural member from exploding, while not adding much weight. The overwrap is located over the entire joint area with some extension past the joint to help with stress concentrations.

On reading this paragraph, the skilled artisan would have understood the function of the overwrap. But neither Applicant, nor the skilled artisan, would have categorized this function as "critical" to the claimed invention in light of this paragraph.

CONCLUSION

For the above reasons, as well as those of record, Applicant respectfully requests the Office to withdraw the above grounds of rejection and allow the pending claims.

If there is any fee due in connection with the filing of this Amendment, including a fee for any extension of time not accounted for above, please charge the fee to our Deposit Account No. 18-0013.

Respectfully Submitted,

By



KENNETH E. HORTON

Reg. No. 39,481

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